

TESTIMONY OF REP. ROSCOE G. BARTLETT
BEFORE THE
SUBCOMMITTEE ON ENERGY AND AIR QUALITY
UNITED STATES HOUSE OF REPRESENTATIVES
7 DECEMBER 2005

Chairman Hall, Ranking Member Boucher, Members of the Energy and Air Quality Subcommittee, I appreciate the opportunity for me and my good friend from New Mexico Tom Udall to testify before you today in our capacity as the co-chairmen of the House Peak Oil Caucus. I thank the Committee for scheduling this hearing and inviting distinguished witnesses to discuss House Resolution 507 which expresses “the sense of the House of Representatives that the United States, in collaboration with other international allies, should establish an energy project with the magnitude, creativity, and sense of urgency that was incorporated in the ‘Man on the Moon’ project to address the inevitable challenges of ‘Peak Oil’.”

Shell Oil company geologist M. King Hubbert first identified “Peak Oil” in the 1940’s and 1950’s. He discovered oil field production follows a bell curve. Oil flows slowly at first, then rapidly increases, reaches a maximum or peak when half of the oil has been extracted, and then production declines rapidly.

Adding the curves from individual wells in the United States, Hubbert projected in 1956 that “Peak Oil” for the United States would occur in 1970. He was right. U.S. oil production peaked and has declined every year since 1971. Despite sharp increases in prices and better technology, US domestic oil production has declined every year since then.

The U.S. has only two percent of world oil reserves. We contribute eight percent of world production. That means we’re pumping our reserves four times faster than the

rest of the world. We consume 25 percent of world oil production. U.S. natural gas production has also peaked. The United States is now the world's largest importer of both oil and natural gas. From importing one third of the oil we use before the Arab Oil Embargo, the U.S. now imports about two thirds of the oil we use.

After U.S. oil production peaked in 1970, our country started and we are continuing to accelerate down a path of growing energy insecurity. The United States used to be the world's largest oil producer. After the U.S. peaked in 1970, Saudi Arabia became the world's largest single oil producer and the leader of OPEC nations which became the world's dominant oil suppliers.

Just as Hubbert was right about the United States, peak oil has occurred in other countries and global peak oil will happen. Oil production is declining in 33 of the world's 48 largest oil-producing countries. The Associated Press just reported that Texas oil and natural gas production declined five percent in the first nine months of 2005. Global "Peak Oil" has not yet occurred, but will mark the maximum annual world production of this source of cheap energy. It has utterly transformed America and the world in the past 100 years.

At the start of the age of oil, world population was one billion; now it's seven billion. The population of the United States is almost 300 million and increasing by nearly 30 million people every decade. Nitrogen fertilizer is made from natural gas. In a very real sense, oil feeds the world.

President Bush has committed the Administration to reducing America's energy insecurity. I met with the President at the White House on June 29, 2005 and was

impressed by his understanding of the need for our government to act now to prepare for global “Peak Oil”. On October 5, 2005, Department of Energy Secretary Samuel Bodman requested the National Petroleum Council to study “Peak Oil” and the oil and natural gas industry's ability to produce enough oil and natural gas at prices that would not cripple the American economy. Our country’s leadership is slowly becoming aware of “Peak Oil”. However, it is my hope because of hearings like this and the testimonies given by some of our most prominent figures, our country’s leadership will start to see the urgency in addressing this issue, and make it the centerpiece of their agenda.

For example, in testimony before the U.S. Senate Committee on Foreign Relations on November 16, former CIA Director James Woolsey discussed “seven reasons why dependence on petroleum and its products for the lion’s share of the world’s transportation fuel creates special dangers in our time.” 1. Transportation infrastructure is dependent upon oil 2. The Middle East will continue to be the low-cost and dominant petroleum producer. 3. Petroleum infrastructure is highly vulnerable to terrorist and other attacks. 4. The possibility is increasing of embargoes or supply disruptions under regimes that could come to power in the Greater Middle East. 5. Oil revenue transfers fund terrorism. 6. Current account deficits for a number of countries create risks ranging from major world economic disruption to deepening poverty that could be reduced by reducing oil imports. 7. Oil used for transportation produce greenhouse gases that increase the risk of climate change.

The planes, ships and trucks of our military run on oil. Tight supplies and high oil prices threaten our national security and the Department of Defense is responding. For instance, in an October 11, 2005 memo on “Assured Fuels,” Assistant Secretary of the

Navy for Research, Development and Acquisition John J. Young, Jr., endorsed a recommendation by the Naval Research Advisory Committee in its “2005 Summer Study of Future Fuels” to set the goal of the Navy to become independent from reliance on foreign oil by 2020. Secretary Young explained, “In light of the current painful reality of DoD fuel price adjustments, and the risks to our fuel sources posed by natural disasters and terrorist threats, I believe we need to act on this recommendation with a sense of urgency.”

For many years, Saudi Arabia maintained enough production flexibility to leverage oil prices at around \$20 per barrel. In recent years, the cushion between world supply and demand whittled away. Three years ago in November 2002, the prompt price for immediate delivery of oil was \$27 per barrel NYMEX WTI (New York Mercantile Exchange – West Texas Intermediate). The price for contracts on 10-year long term derivatives combining NYMEX and forward swaps market transactions was between \$22 and \$24 per barrel. Beginning in December 2003, the price for 10-year contracts began a sharp upward trend that has not abated. The change was prompted by an increase in long term contract purchases by the Chinese and the judgment by market participants that Saudi Arabia could no longer maintain sufficient extra capacity to drive the price of oil down.

In November 2005, the prompt price for immediate delivery of oil was \$60 per barrel after a spike to \$71 per barrel after Hurricane Katrina. The price for 10-year contracts was \$59 per barrel. In the past three years, the prompt price increased two times from \$27 per barrel to \$60 per barrel. The 10-year price increased almost three times from \$22 per barrel to \$59 per barrel. The world's largest banks are the primary

transactors in the private forward swaps markets on behalf of clients who are among the world's largest and best financed institutions and companies. Those price increases in oil, the emergence of a well-defined forward swaps market in oil and the larger magnitude increase between the prompt and 10-year price represent a dramatic change in world oil markets.

A December 1, 2005 CRS report (prepared at my request) documents and ranks countries that experienced declines in oil production between 2003 and 2004. Despite the increase in oil prices, United Kingdom oil production declined 228 thousand barrels. United States oil production declined 159 thousand barrels. Australia declined 83 thousand barrels. Norway declined 76 thousand barrels. Indonesia declined 57 thousand barrels. Argentina declined 50 thousand barrels. Other countries with production declines included: Egypt, Oman, Syria, Yemen Brazil, Columbia and Italy.

At the same time, demand for oil is increasing. China and India are increasing their oil consumption. China increased consumption 51.3% and is the world's second largest importer of oil, behind the United States. Developing countries around the world are increasing their demand for oil consumption at rapid rates. For example, the average consumption increase, by percentage, from 2003 to 2004 for the countries of Belarus, Kuwait, China, and Singapore was 15.9 percent;

In order to keep energy costs affordable, improve the environment, safeguard economic prosperity, and reduce the trade deficit, the United States must move rapidly to increase the productivity with which it uses fossil fuels, and to accelerate the transition to renewable fuels and a sustainable, clean energy economy. There is no one silver bullet to solve this problem. Only through a combination of conservation, improved efficiency,

and a combination of alternate sources of energy for transportation and ultimately renewable sources of energy (i.e. wind, solar, geothermal, harnessing ocean tides) will we be able to meet the energy demands of the future.

How and when we as individuals and government leaders will respond to global “Peak Oil” is what we need to address immediately. I believe global “Peak Oil” presents our country with a challenge as daunting as the one that faced the astronauts and staff of the Apollo 13 program. Contingency planning, training, incredible ingenuity, and collaboration to solve the problem brought the Apollo 13 astronauts back home safe. The U.S. government must lead and inspire Americans’ unmatched ingenuity and creativity to end our unacceptable and unsustainable energy vulnerability and to prevent a worldwide economic tsunami from global “Peak Oil”. We in the Congress must work with and on behalf of our constituents to debate, develop and start implementing appropriate policy changes and legislation to make Americans more secure, as we did in the 1940’s with the Manhattan Project.

The federal government took an active role in funding a crash program, in partnership with the United Kingdom and Canada, to develop the first nuclear weapon in order to defeat Nazi Germany. Now, we again must adopt a crash program, this time in cooperation with our international allies. We must overcome the obstacles we can foresee and those that will emerge. “Peak Oil” will inflict unprecedented pressure upon our citizens and strain the capability of our social, economic, and political institutions. We must survive the challenges of “Peak Oil” only with the tools we have available. We have no choice.

